Amendment of the Claims

The listing of the claims, below, will replace all prior versions and listings of claims in the application.

Listing of the Claims

1. (currently amended) A method of treating obesity in a vertebrate animal comprising administering to the ~~said~~ animal a non-toxic, gut motility-regulating amount of a compound that is a trichothecene or derivative thereof, wherein the compound stimulates a fed pattern of gut motility in the animal.

2. (currently amended) The method of treating obesity according to claim 1, wherein the compound is a trichothecene or derivative thereof ~~is~~ selected from the group consisting of DON; ~~nivalenol; trichothecolon; trichothecin;~~ 3-acetyl DON; ~~7 acetyldeoxynivalenol; 3,15-diacetyldeoxynivalenol; 4-acetylnivalenol (fusarenon X); 4,15-diacetylnivalenol;~~ isopropylidine DON; isopropylidine-3-acetyl-DON; DON carbonate; 3-acetyl-DON carbonate; 3-acetyl-DON benzylidene acetal; and DON benzylidene acetal.

3. (currently amended) The method of treating obesity according to claim 2, wherein the compound ~~trichothecene~~ is DON.

4. (currently amended) The method of treating obesity according to claim 1, wherein the compound ~~trichothecene~~ is administered orally, parenterally, intravenously, intramuscularly, or intra-arterially.

5. (currently amended) The method of treating obesity according to claim 4, wherein the compound ~~trichothecene~~ is administered orally.

6. (previously presented) The method of treating obesity according to claim 1, wherein the vertebrate animal is selected from the group consisting of primates, swine, cattle, sheep, birds, horses, cats, dogs, and rodents.

7. (previously presented) The method of treating obesity according to claim 1, wherein the vertebrate animal is a human.

8. (currently amended) A method of stimulating fed pattern of gut motility in a vertebrate animal comprising administering to the ~~said~~ animal a non-toxic, gut motility-regulating amount of a compound selected from the group consisting of a trichothecene or derivative thereof, a trichothecene analog, and ~~or~~ a non-desensitizing agonist of the P_{2X1} receptor.

9. (currently amended) The method of claim 8, wherein the compound is a trichothecene or derivative thereof ~~is~~ selected from the group consisting of DON; ~~nivalenol; trichothecolon; trichothecin;~~ 3-acetyl DON; ~~7-acetyldeoxynivalenol; 3,15-diacetyldeoxynivalenol; 4-acetylnivalenol (fusarenon-X); 4,15-diacetylnivalenol;~~ isopropylidine DON; isopropylidine-3-acetyl DON; DON carbonate; 3-acetyl-DON carbonate; 3-acetyl-DON benzylidene acetal; and DON benzylidene acetal.

10. (currently amended) The method of claim ~~8~~ 9, wherein the compound ~~trichothecene~~ is DON.

11. (currently amended) The method of claim 8, wherein the compound ~~trichothecene~~ is administered orally, parenterally, intravenously, intramuscularly, or intra-arterially.

12. (currently amended) The method of claim 8, wherein the compound ~~trichothecene~~ is administered orally.

13. (previously presented) The method of claim 8, wherein the animal is selected from the group consisting of primates, swine, cattle, sheep, birds, horses, cats, dogs, and rodents.

14. (previously presented) The method of claim 8, wherein the vertebrate animal is a human.

15. (previously presented) The method of claim 8, wherein the non-desensitizing agonist of the P_{2X1} receptor is an analog of ATP.

16. (previously presented) A method of increasing weight in a vertebrate animal comprising administering to said animal an analog of ATP in an amount sufficient to inhibit fed pattern gut motor activity.

17. (previously presented) The method of claim 16, wherein the analog of ATP is a desensitizing agonist or an antagonist of the P_{2X1} purinoceptor.

18. (previously presented) The method of claim 17, wherein the analog of ATP is selected from the group consisting of α,β-methylene ATP and 2',3'-O-(2,4,6-trinitrophenyl)-ATP.

19. (currently amended) A method of preventing fed pattern of gut motility in a vertebrate animal comprising administering to the animal an analog of ATP.

20. (previously presented) The method of claim 19, wherein the analog of ATP is a desensitizing agonist or an antagonist of the P_{2X1} receptor.

21. (previously presented) The method of claim 20, wherein the analog of ATP is selected from the group consisting of α,β-methylene ATP and TNP-ATP.

22. (previously presented) A method of identifying a compound for treating obesity comprising determining whether the compound is capable of inducing fed pattern gut motor activity.

23. (previously presented) The method of identifying a compound for treating obesity according to claim 22, wherein the compound is tested for the ability to induce fed pattern gut motor activity using an *in vitro* gut organ bath assay, an *ex vivo* gut organ assay, or an *in vivo* assay for gut organ motor activity.

24. (previously presented) The method of claim 22, wherein the fed pattern gut motor activity induced by the compound is compared to the fed pattern gut motor activity induced by DON.

25. (currently amended) A pharmaceutical composition for inducing fed pattern gut motor activity comprising:

(a) a compound selected from the group consisting of ~~nivalenol;~~ 4-deoxynivalenol; ~~trichothecolon; trichothecin;~~ 3-acetyldeoxynivalenol; ~~7-acetyldeoxynivalenol; 3,15-diacetyldeoxynivalenol; 4-acetylnivalenol (fusarenon X); 4,15-diacetylnivalenol;~~ 3-hydroxy-12,13-epoxy-9-tricothecin-8-one-7,15 carbonate; 3-acetoxy-12,13-epoxy-9-tricothecin-8-one-7,15 carbonate; 3-acetoxy-7,15-benzylidene-12,13-epoxy-9-tricothecin-8-one; 3-hydroxy-7,15-benzylidene-12,13-epoxy-9-tricothecin-8-one; 3-hydroxy-7,15-isopropylidine-12,13-epoxy-9-tricothecin-8-one; 3-acetoxy-7,15-isopropylidine-12,13-epoxy-9-tricothecin-8-one; and combinations thereof, and

(b) a pharmaceutically acceptable carrier.

26. (previously presented) The compound 3-hydroxy-7,15-isopropylidine-12,13-epoxy-9-tricothecin-8-one.

27. (previously presented) The compound 3-acetoxy-7,15-isopropylidine-12,13-epoxy-9-tricothecin-8-one.

28. (previously presented) The compound 3-hydroxy-12,13-epoxy-9-tricothecin-8-one-7,15 carbonate.

29. (previously presented) The compound 3-acetoxy-12,13-epoxy-9-tricothecin-8-one-7,15 carbonate.

30. (previously presented) The compound 3-acetoxy-7,15-benzylidene-12,13-epoxy-9-tricothecin-8-one.

31. (previously presented) The compound 3-hydroxy-7,15-benzylidene-12,13-epoxy-9-tricothecin-8-one.

32. (new) A method of regulating food intake by a vertebrate animal comprising administering to the animal a compound selected from the group consisting of a trichothecene, a trichothecene derivative, and a non-desensitizing agonist of the P_{2X1} receptor; wherein the compound is effective to act non-toxically to stimulate a fed pattern of gut motility in the animal.

33. (new) The method of claim 32, wherein the compound is a trichothecene or trichothecene derivative selected from the group consisting of DON; 3-acetyl DON; isopropylidine DON; isopropylidine-3-acetyl DON; DON carbonate; 3-acetyl-DON carbonate; 3-acetyl-DON benzylidene acetal; and DON benzylidene acetal.

34. (new) The method of claim 33, wherein the compound is DON.

35. (new) The method of claim 32, wherein the compound is administered orally, parenterally, intravenously, intramuscularly, or intra-arterially.

36. (new) The method of claim 35, wherein the compound is administered orally.

37. (new) The method of claim 32, wherein the vertebrate animal is selected from the group consisting of primates, swine, cattle, sheep, birds, horses, cats, dogs, and rodents.

38. (new) The method of claim 32, wherein the vertebrate animal is a human.

39. (new) The method of claim 32, wherein the non-desensitizing agonist of the P_{2X1} receptor is an analog of ATP.